

TO KILL MOSQUITOES OR OTHER INSECTS

Mix equal parts of 90% alcohol and a 1:500 aqueous solution of $HgCl_2$. Gently boil the insect in this for a minute or two to expel the air in the tracheæ. As the solution cools it is drawn through the stigmata into the body of the insect to all the tissues. Leave for a few hours, then pass at proper intervals through 90% alcohol, absolute, oil of turpentine, and paraffin.

R. Ross says this is particularly good for salivary glands of infected mosquitoes, as the Sporozoa are well preserved.

In case it is desired to mount whole a larva or small adult insect, after killing as above, use Farrant's Medium. Ring with Hollis' glue.

Abstracted by V. A. Latham.

TO KEEP SLIDES AT CONSTANT TEMPERATURE

Use a sheet of copper 15 inches long, 3 inches broad, and 1-12 inch thick. Support on 2 or more suitable feet and place a small lamp beneath. In this way graduation of temperature can be had by varying the height, and at different distances from the heated point.

V. A. LATHAM.

SECTION CUTTING IN GELATIN BY FREEZING

Gaskell (J. Path. and Bact. July 1912) recommends cutting certain materials by freezing in gelatin rather than by the usual processes. It is claimed that it avoids distortion such as occurs in use of fluids like alcohol and xylol, and also the vacuolation found in paraffin preparations. The fats are of course preserved. It is valuable in examining small objects, and objects with loose tissues like lung and tissues liable to disintegration. It is especially useful in examination of lung in broncho-pneumonia, as the contents are preserved *in situ*. Many other similar occasions of usefulness are cited. It prevents the disintegration often resulting from ordinary methods in pancreas, liver and spleen and the like.

The most important item is to get the proper consistency of the gelatin.

Fix in some formal mixture, as 10% formalin in Müllers fluid; wash thoroughly (over night or equivalent time), as formol will act on the gelatin and prevent penetration.

Tear up and soak Gold Label gelatin in water from 1 to 4 minutes, depending on room temperature. Squeeze the gelatin by hand, place in beaker, cover and melt in paraffin oven till viscid.

Transfer to ordinary incubator at 37° C., take tissue from water, dry or blotting paper, drop into gelatin, and leave for 2 hours.

Imbed the tissue in a paper box in some of the gelatin in which it has soaked. Let the mass set at room temperature. Harden for 3 or 4 days in vapor of formol, supporting above the fluid in suitable way. It may be left in this state indefinitely, or be stored in 5% formol. Return to the vapor for a few days before cutting.

When ready to cut pare the block and place in water 1-10 minute, depending on hardness, before freezing. The freezing microtome recommended is one by Aschoff made by Sartorius of Göttingen.

Various methods of successful staining are also given.

Abstracted by V. A. L.

HOUSEHOLD BACTERIOLOGY

This book is the outgrowth of courses in the subject given in the department of Home Economics at the Iowa State College of Agriculture. It is somewhat more than its name implies. It is rather a study of micro-organisms from the point of view, first, of the general student, and, second, of the student of the economic and sanitary applications.

The treatment is compact, and the authors succeed admirably in securing an intelligible discussion of an enormous number of phases of the subject. It appears to the reviewer as one of the most teachable of the books on the subject of economic microbiology.

After an overbrief opening chapter introducing the subject in a historic way, Sections I-III, consisting of 19 chapters, follow, dealing with the general considerations (I) of Morphology and Classification; (II) of the Technic of Culture, Sterilization, and